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May 9, 1994

William F. Caton
Secretary
Federal Communications Commission
1919 M Street, N.W.
Room 222
Washington, DC 20554

Re: CC Docket No. 94-1
Price Cap Performance Review
for Local Exchange Carriers

Dear Mr. Caton:

Enclosed herewith for filing with the Commission are an original and four (4) copies of the Comments of the Computer & Communications Industry Association in the above-captioned docket. This filing is made pursuant to Section 1.419 of the Commission's rules, 47 C.F.R. § 1.419. Please direct any questions regarding this filing to the undersigned.

Very truly yours,

Charles A. Zielinski

Enclosures

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Price Cap Performance Review	)	CC Docket No. 94-1
for Local Exchange Carriers	)	
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COMMENTS OF THE COMPUTER & COMMUNICATIONS INDUSTRY ASSOCIATION ON PROPOSED RULEMAKING

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DATED: May 9, 1994

SUMMARY

The Computers & Communications Industry Association ("CCIA") directs its initial comments in this proceeding to Baseline Issue 1a. CCIA contends that the Commission's statutory goals include promotion of an advanced telecommunications infrastructure and that local exchange carrier ("LEC") networks are not as advanced as they could be. In particular, copper wire distribution facilities in LEC networks limit the full development and use of interactive computer programs, including multimedia software.

CCIA further contends that the Commission's current system of price cap regulation should be reformed to provide stronger, positive financial incentives to LECs to invest in an advanced telecommunications infrastructure. The current system is compromised by the "sharing" requirement; fails to recognize that LECs will direct more investment to unregulated services if they perceive an opportunity for greater returns from such services; and continues to discourage acceleration of depreciation of older technologies through continued regulation of depreciation rates.

CCIA also argues that Chairman Hundt has mounted a compelling case for targeting LEC advanced telecommunications infrastructure investment to the education sector. The evidence gathered by Chairman Hundt is reviewed herein, and CCIA contends that the Commission may develop LEC price cap reforms designed to target the education sector in light of the "external" benefits of such a policy.

Finally, CCIA outlines a proposed policy option under LEC price cap regulation that would target the education sector for advanced telecommunications. CCIA suggests that the Commission offer more favorable treatment under price cap regulation to LECs that agree to meet approved annual goals for wiring up the Nation's classrooms for advanced telecommunications. That would allow CCIA's computer company members to develop interactive programs for educational use more fully, consistent with the national interest in educational improvement.

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COMMENTS OF THE
COMPUTER & COMMUNICATIONS INDUSTRY ASSOCIATION
ON PROPOSED RULEMAKING

I. INTRODUCTION

The Computer & Communications Industry Association ("CCIA") submits these comments in response to the Notice of Proposed Rulemaking ("NPRM") released February 16, 1994 in the above-captioned docket. In this proceeding, the Commission conducts the review of price cap regulation of local exchange carriers ("LECs") to which it committed when it adopted this new system of regulation four years ago.[1] CCIA does not have the resources necessary to perform all of the detailed studies and analyses the Commission has requested for review of individual aspects of its price cap plan. In consequence, CCIA offers no opinion on such issues as the appropriate productivity factors under price cap regulation. In this initial submission, CCIA directs its comments primarily to the

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1 Policy and Rules Concerning Rates for Dominant Carriers, CC Docket No. 87-313, 5 FCC Rcd. 6786 (1990) ("LEC Price Cap Order"), Erratum, 5 FCC 7664 (Com. Car. Bur. 1990), modified on recon., 6 FCC Rcd. 2637 (1991) ("LEC Reconsideration Order"), aff'd, National Rural Telecomm Ass'n v. FCC, 988 F.2d 174 (D.C. Cir. 1993)

overarching policy issue in this proceeding, Baseline Issue 1a, viz., "whether, and if so how, the Commission should revise the LEC price cap plan to support the development of a ubiquitous national information infrastructure."[2]

CCIA is an industry association representing some 40 telecommunications and computer companies. These companies employ some one million people, spend approximately $10 billion annually on research and development, and generate upwards of $192 billion in annual revenues from sales of computer and telecommunications products and services. CCIA's members strongly favor a price cap regulatory policy that is reasonably designed to promote an advanced telecommunications infrastructure in the United States. Such an infrastructure is necessary not only for CCIA's members and their customers, but also to serve the broader public interest in a healthy, growing economy.

Price cap regulation can be viewed as a transitional device to a fully deregulated, competitive local distribution market. Competitive alternatives for large businesses are already widely available. As competition continues to develop, the Commission should alter its policies accordingly, to allow competitive market forces to serve developing demands. Complete deregulation, however, is not a policy option specified for examination in this proceeding, and CCIA has therefore focused its attention on how the Commission

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2 NPRM at para. 36.

might alter price cap regulation to further its statutory objectives.

II. SYNOPSIS OF POSITION

In its substantive comments set forth below, CCIA will show: (1) that the Commission's statutory goals under the Communications Act include an advanced national telecommunications infrastructure; (2) that the existing scheme of price cap regulation for LECs fails to provide the strongest possible positive financial incentives for LEC investment in an advanced telecommunications infrastructure; (3) that there is a particularly strong national interest in the development of such an infrastructure for primary and secondary public schools, as well as for public libraries; and (4) that the Commission would serve the public interest more effectively if it were to offer LECs the option of stronger, positive financial incentives for investment under price cap regulation -- i.e., more favorable treatment with respect to "sharing," productivity factors, and depreciation, individually or in combination -- in return for verifiable annual progress toward and completion of an FCC approved plan to wire the Nation's classrooms and libraries for advanced telecommunications. CCIA outlines such an option at the conclusion of the discussion below and urges the Commission to incorporate such an option in its reformation of LEC price cap regulation.

III. DISCUSSION

A. The Commission's Statutory Goals Include an Advanced National Telecommunications Infrastructure

Congress created the Federal Communications Commission

> [f]or the purpose of regulating interstate and foreign commerce in communication by wire, and radio so as to make available, so far as possible, to all the people of the United States a rapid, efficient, Nation-wide, and world-wide wire and radio communication service with adequate facilities at reasonable charges. . . .[3]

In interpreting this statement of Congressional intent, the Commission has identified four general goals that its policies should promote: (1) universal service; (2) efficiency in the provision of services; (3) reasonable prices for service; and (4) technological progress in telecommunications.[4] The latter objective, the Commission has recognized, captures the intent of the Congressional mandate "to make available, so far as possible . . . a rapid, efficient . . . communications service."[5]

The Commission clearly has designed effective policies to promote rapid progress in the development of telecommunications technology. The Commission's policies on, for example, open network architecture, expanded interconnection, and

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[3] Section 1 of the Communications Act of 1934, 47 U.S.C. § 151 (emphasis added).

[4] See In The Matter of MTS and WATS Market Structure, CC Docket No. 78-72, Supplemental Notice of Inquiry and Proposed Rulemaking, 73 FCC 2d 222, 230 at para. 22 (1979).

[5] Section 1 of the Communications Act of 1934, 47 U.S.C. § 151.

competitive entry all are designed, in part, to promote technological progress.

Nonetheless, there is today a technological mismatch between the capabilities of backbone interstate telecommunications networks and local exchange networks. The backbone interstate networks now consist almost entirely of fiber optic transmission and digital switching technology. These interstate networks have the capability of moving information at a rapid rate in a variety of forms and in large amounts. They are therefore most suitable for the exploitation of the full capabilities of modern computer technology, which can process large amounts of data in a digital format, and require a wide transmission path for efficient delivery of information. But the interstate public networks terminate in LEC networks. Although these networks in many cases are trunked with fiber optic transmission and digital switching facilities, they terminate, for the most part, in analog, narrow-band copper wire distribution "loops" and inside wire. Wide-band distribution facilities have been extended mainly to large businesses and, in many cases, by competitive access service providers.

The copper wire distribution facilities constrain the delivery of high-speed communications to other customers. That constraint, notwithstanding the enhanced capabilities of the interstate network, severely limits the potential uses of computer technology. For example, the full movement of video images produced by computer technology is lost when the

transmission must be "squeezed" through narrow-band copper wire facilities. This constraint limits the extent to which computer technology applications can be deployed to create new services and, therefore, new employment opportunities that are necessary to sustain a healthy and growing economy into the future.

As Commission Chairman Hundt recently observed:

> . . . [o]ur economy depends on the [telecommunications] networks. Approximately 60% of the workforce consists of "knowledge workers" -- people who use the networks to communicate and learn in order to do their job.[6]

Those networks, however, are not as technologically advanced as they could be.

B. The Existing Price Cap System of Regulation Should be Reformed

The Commission adopted a system of price cap regulation because it was convinced that traditional cost-of-service regulation promoted inefficient investment practices by LECs. In particular, the Commission was concerned that LECs had an incentive to invest more than was necessary to provide service in order to expand the investment base on which they are allowed a percentage rate of return. Doing so would increase total return revenues to an LEC, all other things being equal.[7]

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[6] Reed Hundt, Chairman, Federal Communications Commission, First Annual Action for Children's Television Lecture on Media and Children, Harvard Graduate School of Education, February 28, 1994 at 2 ("ACT Lecture").

[7] See LEC Price Cap Order, 5 FCC Rcd. at 6789-92.

In order to remove that alleged incentive, the Commission chose to adopt a system of price cap regulation. Under that system, LECs generally do not base price changes on specific changes in their individual cost of service. Instead, most price changes are generally governed by changes in an external inflation index, reduced by a productivity factor. The Commission continues, however, to determine an allowed rate of return on investment and requires "sharing" of revenues between an LEC and its interexchange carrier customers above certain rate of return thresholds. Under this system, LECs have an increased incentive to maximize cost reductions that will increase net income because they are permitted to retain some of the revenues earned that are in excess of the allowed rate of return.

The system is, however, compromised to a considerable degree by the "sharing" mechanism. Under this mechanism, LECs that choose the lower of two productivity factors must return to their interexchange carrier customers 50 percent of their net revenues that fall within a range between 1 percent and 5 percent above the prescribed rate of return.[8] This limitation on the extent to which LECs can benefit from efficiency improvements lessens the efficiency incentive the Commission created.

When the Commission adopted the "sharing" mechanism, it also failed to account properly for its effect on LEC capital

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[8] See LEC Price Cap Order, 5 FCC Rcd. at 6801. They must return all revenues above the 50-50 "sharing" range, but that threshold has rarely been crossed.

investment. LECs may invest in advanced infrastructure technology for their regulated network services, or they may invest in the provision of unregulated services. Because "sharing" does not apply to revenues earned from the latter services, there is no limitation on the LECs' potential "reward" from investing in unregulated services. Thus, to the extent that LECs perceive that there is an opportunity for greater "reward" in unregulated service investments, capital will be directed toward those investments rather than to investments in advanced infrastructure technology for regulated services.

The Commission has also continued to regulate depreciation rates under price cap regulation, and often sets those rates at levels below those requested by LECs, even though depreciation regulation is far from an exact science. If depreciation rates for LECs had been deregulated in connection with the introduction of price cap regulation, LECs would undoubtedly have accelerated depreciation on older technologies, and LEC reported returns, in consequence, would be less. In effect, net revenues that are now being "shared," could have been applied to depreciation expense.

The Commission recognized the possibility that its price cap regulatory policy could result in a sacrifice of LEC regulated service improvements. To guard against that possibility, the Commission created a formal LEC service quality monitoring program.[9] That program, however, provides

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[9] See LEC Price Cap Order, 5 FCC Rcd. at 6827-31.

no positive financial incentive to LECs to invest in improved service quality. It is, therefore, not the most powerful tool available to the Commission to promote LEC investment in an advanced telecommunications infrastructure.

If the Commission were to eliminate "sharing" from its price cap regulation scheme, however, LECs might still not have a strong enough incentive for increasing infrastructure investment. The Commission's regulatory scheme directly affects only LEC regulated interstate service revenues which, for the large LECs, represent only a third or less of their total revenues. The regulatory schemes of state regulatory commissions directly affect the substantial majority of LEC regulated service revenues, which come from intrastate services. Thus, the state commissions also would have to adopt price cap regulatory schemes without "sharing" to maximize the LECs' regulated service investment incentives. While state commissions may follow an FCC decision to eliminate "sharing," the Commission probably cannot compel them to do so under current law. And the current division of LEC regulated service investment that is required by the Commission's jurisdictional separations rules continues to keep most of the LECs' regulated service investment under state regulation.[10]

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10 See Jurisdictional Separations Procedures, 47 C.F.R. Part 36 (1993); see also, Louisiana Public Serv. Comm'n. v. FCC, 476 U.S. 355, 377 (1986).

C. The National Interest Would Be Well Served by the Rapid Development of an Advanced Telecommunications Infrastructure for Education

> "Think of it -- instant access to information will increase productivity, will help to educate our children." This was the first time telecommunications was mentioned in a State of the Union Speech. It was mentioned as the path to a new kind of education.[11]

The foregoing observation by Commission Chairman Hundt emphasizes the importance of advanced telecommunications services for primary and secondary public schools (and public libraries). As Chairman Hundt has further observed, "when the [switched, broad-band, interactive] networks are built, any child can have access through a computer, TV set or telecomputer to any teacher and any group of children with access to the new network. Any child can at all times be in the virtual classroom for his or her development or interests."[12] Such networks are, however, a costly undertaking.

Chairman Hundt has also cited the following relevant facts. *"Studies show [ ] that using interactive computer-based instruction is the most cost-effective way to increase educational achievement."*[13] And "a recent NEA study showed that most teachers appreciate the benefits of these advanced technologies and feel that, when given the tools, they have been more effective teachers because of technology."[14] But

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11 ACT Lecture at 3.

12 Id. at 3-4.

13 Id. at 5 (emphasis added).

14 Id.

only "about one-eighth of all classrooms have a telephone line. Only 4% have a modem to connect a computer to other computers, to the great electronic storehouses of knowledge that are proliferating everywhere. . . . "[15] Connecting "interactive networks to the two million classrooms in the country's schools" would change all of this, and "cause profound change in education."[16]

Chairman Hundt cited two fundamental reasons for that profound change. First, "an interactive network will create an explosion of learning by two-way communication."[17] And, "[s]econd, the networks will allow students and teachers to escape the confines of the classroom and to join new learning groups over the networks."[18]

Most importantly, wiring up classrooms and libraries for advanced telecommunications will allow full development of what education experts agree is the "key technology in revamping American education": multimedia software.[19] Statistical and anecdotal evidence from selected applications of multimedia software already demonstrate that "the power of interactivity to enhance education is extraordinary."[20]

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15 Id. at 5-6.

16 Id. at 6.

17 Id.

18 Id.

19 Id. and Armstrong, et al., The Learning Revolution, Bus. Wk., Feb. 28, 1994, at 80.

20 ACT Lecture at 6.

The computer company members of CCIA are both highly qualified and motivated to develop and deploy this multimedia software in educational applications. What they require are suitable telecommunications connections to the Nation's classrooms so that students and teachers can use multimedia software efficiently, effectively, and interactively.[21] As Chairman Hundt has observed, "today we are far from that goal."[22]

Targeting primary and secondary schools and libraries for advanced telecommunications facilities would produce not only improvements in education, but also "external" benefits to the American economy. The improved quality of education should ultimately result in increases in productivity in the general economy as these better educated graduates enter the work force. Improvements in productivity in the general economy, not just in the telecommunications sector, will be necessary to sustain economic growth for the benefit of all Americans into the future.

The economic concept of "externalities" (which in this case would be positive) is not foreign to Commission policymaking. The Commission has justified its departures from efficient regulated service rates to promote "universal service" on this ground. More specifically, the Commission

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21 Cf., FCC Chairman Reed E. Hundt, Address to the National Press Club, May 2, 1994, at 2. ("When a computer programmer . . . dreams of developing educational software for the kids in our public schools, she is counting on the information highway . . . .")

22 ACT Lecture, at 5.

has relied on the economic argument that telecommunications networks are more valuable to all subscribers when subscription is maximized because communications among more people are then possible.[23] In considering reforms to its price cap regulatory policy, the Commission could recognize the "external" benefits that would flow from wiring up the Nation's public schools and libraries for interactive telecommunications.

D. CCIA's Proposed Option Under Price Cap Regulation Would Promote an Advanced Telecommunications Infrastructure for Education and That Option Should be Adopted

Although the rapid wiring up of the Nation's classrooms and public libraries for advanced telecommunications is an appropriate public policy goal for the Commission, the mere elimination of "sharing" from FCC price cap regulation is unlikely to achieve that goal, for at least two reasons. First, the elimination of "sharing" alone would not target the education sector for LEC investment in advanced telecommunications communications. Second, state commissions, whose regulatory policies influence the majority of LEC regulated service revenues, may not follow "no sharing" price cap regulatory schemes. Thus, if the Commission wishes to assure more rapid progress toward the goal for which Chairman Hundt has stated such a compelling case, it is necessary for the

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23 See In The Matter of MTS and WATS Market Structure, CC Docket No. 78-72, 1985 FCC Lexis 4138, at 36, 57 Rad. Reg. 2d (P&F) 721, Order (issued Dec. 19, 1984).

Commission to adopt a more innovative, non-traditional policy approach.

CCIA suggests that the Commission offer LECs more favorable treatment under FCC price cap regulation -- i.e., relief from "sharing," depreciation and the "baseline" productivity factor, individually, or in combination -- in return for providing advanced inside wiring facilities to the Nation's 2 million classrooms, as well as to its public libraries. As Chairman Hundt has observed, only about 12 percent of the Nation's classrooms currently have a telephone line.[24] Yet suitable inside wire facilities are essential to interactive communications and the effective use of multimedia software. Moreover, LECs are not affected by state regulatory policies with respect to their provision of this competitive, unregulated service.[25] Finally, the provision of advanced inside wiring to the Nation's classrooms and public libraries appears to be a substantial and costly enough undertaking to warrant a suitable financial incentive.

Under this policy option, an LEC would submit a plan to the FCC, subject to its approval, with a fixed time period and annual goals for wiring up primary and secondary public school classrooms and public libraries in its service territories.

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24 See ACT Lecture at 5-6.

25 See Detariffing the Maintenance and Installation of Inside Wire, Reconsideration Order, 51 Fed. Reg. 8498 (Mar. 12, 1986), further reconsideration, 3 FCC Rcd. 1719 (1988), remanded National Assn. of Regulatory Utility Comm'rs. v. F.C.C., 880 F.2d 422 (D.C. Cir. 1989), on remand, 7 FCC Rcd. 1334 (1992).

In return for achieving an annual goal, the LEC would receive more favorable price cap regulatory treatment in its current price cap review period. That more favorable treatment would consist of relief from "sharing," depreciation regulation, and the "baseline" productivity factor to be determined in this proceeding, individually or in combination.

Without attempting to specify at this point exactly what the more favorable treatment for LECs should be, CCIA notes that the current productivity factor includes a "consumer productivity dividend" ("CPD").[26] The benefit of the CPD, as an example, could be directed at public education on the grounds that the resulting educational improvements will provide "external" benefits to all consumers over the long term. LECs choosing the CCIA option would accept the burden of negotiating agreements with schools and libraries to provide the inside wire service. If they failed to reach such agreements, they could not meet their annual goals under their plans and therefore would not earn the right to more favorable price cap regulatory treatment. That aspect of this approach favors the schools and libraries and would likely result in unregulated inside wire service "bargains" for them. Thus, if the LECs were allowed to keep the CPD as a part of their more favorable price cap regulatory treatment, they would likely pass it on, in effect, to the schools and libraries.

That effect of this approach, however, seems desirable in light of well-publicized, widespread budgetary pressures on

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[26] See LEC Price Cap Order, 5 FCC Rcd. at 6796-99.

public schools and libraries, which serve as a brake on increased demand for advanced telecommunications technology. Moreover, LECs would not be obligated to choose CCIA's option under price cap regulation. Those who object to being put into an unfavorable negotiating position can elect normal price cap regulation. CCIA favors adoption of its proposal only as an option for LECs. The Commission should not mandate this approach for all LECs, some of which may prefer the normal system of price cap regulation that the Commission will adopt in this proceeding. The Commission may create reasonable incentives to influence LECs to take initiatives that will further the agency's goals; but it should not mandate particular outcomes.

At bottom, CCIA's proposed approach is similar to the "social contracts" state regulatory commissions have used in recent years. LECs have made various commitments requested by those commissions in return for certain "incentive" types of regulatory treatment. Here too, the FCC can, in effect, contract with LECs to provide a particular form of price cap regulation in return for the LECs living up to approved commitments to wire up the Nation's classrooms and libraries in order to further the FCC's public policy goals. Thus, although CCIA's approach is non-traditional for the Commission, it is not unprecedented.

IV. CONCLUSION

Commission Chairman Hundt has stated: "It is readily possible for us to connect the interactive networks to the two million classrooms in the country's schools. But today we are far from that goal."[27] CCIA urges the Commission to reform its price cap regulatory policy in this proceeding along the lines suggested herein in order to promote more rapid achievement of that goal.

Respectfully submitted,

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[27] ACT Lecture at 5.